IN THE CLAIMS:

The following is a complete listing of claims in this application.

1. (original) Method for measuring and/or regulating the oscillation amplitude of an ultrasound oscillator of an ultrasound device, comprising components producing or transmitting oscillations in the form of at least one converter and one sonotrode as well as, if applicable, a booster placed between the converter and the sonotrode, wherein in order to produce ultrasound oscillations the converter is connected with a control system circuit, such as a generator, via which a high frequency voltage or current for the purpose of producing the ultrasound oscillations is sent to the converter, characterized in that a sensor detecting the oscillation amplitudes is associated with at least one component element and actual signals corresponding to the oscillation amplitudes determined by the sensor are monitored an/or compared with the expected signals in the control system circuit or a measuring and monitoring device and that an output signal of the control circuit for the purpose of producing the ultrasound oscillations is varied as a function of the deviations occurring between the actual and expected signals.

2. (original) Method according to Claim 1, characterized in that alternating signals generated by the sensor by means of oscillation amplitudes and/or direct voltage signals derived from them are sent to the control system circuit and/or the measuring and monitoring device to regulate the output signal or the output signals.

3. (currently amended) Method according to Claim 1 ~~or 2~~, characterized in that the control signals with a high frequency voltage present at the converter or its piezo-

LAW OFFICES
DENNISON, SCHULTZ & MACDONALD
SUITE 105
1727 KING STREET
ALEXANDRIA, VIRGINIA 22314-2700
703 837-9600

ceramic discs or a flowing high frequency current are fed to a differential amplifier with a comparator and that an output signal of the comparator forms the basis for regulating the high frequency voltage or the high frequency current.

4. ~~(currently amended) Method according to at least one of the previous claims~~ Claim 1, characterized in that the sensor signals are sent to a rectifier circuit and that the compensation voltage signal of the rectifier circuit forms the basis for regulating the high frequency voltage or the high frequency current.

5. ~~(currently amended) Method according to at least one of the previous claims~~ Claim 1, characterized in that the sensor signals are sent to a comparator and are transformed into voltage pulses with an oscillation frequency of the signals and sent to a counter.

6. ~~(currently amended) Method according to at least one of the previous claims~~ Claim 1, characterized in that a piezo-ceramic sensor is used as the sensor.

7. ~~(currently amended) Method according to at least one of the previous claims~~ Claim 1, characterized in that an inductive sensor and/or a capacitive sensor and/or a resistance sensor, such as an elongation measuring tape sensor, and/or an optical sensor, such as a laser sensor, and/or an acceleration sensor are used as the sensor.

8. ~~(currently amended) Method according to at least one of the previous claims~~ Claim 1, characterized in that the sensor is positioned or integrated on or in the converter.

9. ~~(currently amended) Method according to at least one of the previous claims~~ Claim 1, characterized in that the sensor is positioned or integrated on or in the booster.

10. ~~(currently amended) Method according to at least one of the previous claims~~ Claim 1, characterized in that the

LAW OFFICES
DENNISON, SCHULTZ & MACDONALD
SUITE 105
1727 KING STREET
ALEXANDRIA, VIRGINIA 22314-2700
703 837-9600

sensor is positioned or integrated on or in the sonotrode.

11. ~~(currently amended) Method according to at least one of the previous claims~~ Claim 1, characterized in that the converter is surrounded by a housing, in which the sensor is placed.

12. ~~(currently amended) Method according to at least one of the previous claims~~ Claim 1, characterized in that the sensor is placed in the mount of the ultrasound oscillator.

13. ~~(currently amended) Method according to at least one of the previous claims~~ Claim 1, characterized in that the sensor is positioned on a basic body of the ultrasound welding device, which body accommodates the oscillator.

14. (original) Ultrasound welding device comprising component parts producing or transmitting oscillations in the form of at least one converter (12, 54) and one sonotrode (14) as well as, if applicable, a booster (16) placed between them, a backing electrode (ambos) (15) associated with the sonotrode, between which and the sonotrode compressible, weldable parts, such as wires, are placed, preferably in a compression chamber, where for the purpose of oscillation production an amplitude is applied to the converter via a control system (22) with a high frequency voltage or a high frequency current flows to it, characterized in that a sensor (26, 36, 38, 40, 42, 48) that captures the amplitude is associated with at least one component element (12, 14, 16).

15. (original) Ultrasound welding device according to Claim 14, characterized in that the sensor is a piezo-ceramic sensor (26, 36, 38, 40, 42, 48).

16. (original) Ultrasound welding device according to Claim 14, characterized in that the sensor is an inductive sensor or a capacitive sensor or a resistance sensor, such as an elongation measuring tape sensor, or an optical sensor,

LAW OFFICES
DENNISON, SCHULTZ & MACDONALD
SUITE 105
1727 KING STREET
ALEXANDRIA, VIRGINIA 22314-2700
703 837-9600

such as a laser sensor, or an acceleration sensor.

17. (currently amended) Ultrasound welding device according to ~~at least one of Claims 14 to 16~~ Claim 14, characterized in that the sensor (26, 36, 38, 40, 42, 48) is positioned or integrated on or in the converter (12, 54) and/or on or in the booster (16) and/or on or in the sonotrode (14).

18. (currently amended) Ultrasound welding device according to ~~at least one of Claims 14 to 17~~ Claim 14, characterized in that the converter (12) is surrounded by a housing, in which the sensor is placed.

19. (currently amended) Ultrasound welding device according to ~~at least one of Claims 14 to 18~~ Claim 14, characterized in that the sensor is placed in the mount of the ultrasound oscillator.

20. (currently amended) Ultrasound welding device according to ~~at least one of Claims 14 to 19~~ Claim 14, characterized in that the sensor is placed on the basic body of the ultrasound welding device (10), which body accommodates the oscillator.

21. (currently amended) Ultrasound welding device according to ~~at least one of Claims 14 to 20~~ Claim 14, wherein the converter (54) comprises several first piezo-ceramic discs (56, 58, 60, 62) able to be put into oscillation, which are placed between a pin (66) and a nut (68) and are tensioned between them by a first bolt element (70), which protrudes beyond the outer surface of the converter nut, characterized in that the first bolt element (70) comprises a tapped blind hole (74) starting at the end face (72) running from the converter nut side with an internal threading into which a second bolt (76) is screwed, via which the piezo-ceramic sensor (48) is tensioned in relation to the first bolt

LAW OFFICES
DENNISON, SCHULTZ & MACDONALD
SUITE 105
1727 KING STREET
ALEXANDRIA, VIRGINIA 22314-2700
703 837-9600

element.

22. (original) Ultrasound welding device according to Claim 21, characterized in that the piezo-ceramic sensor (48) comprises at least two piezo-ceramic breaker plates (50, 52), each of which has an outer diameter AD of 15 mm </- AD </- 10 mm and/or an inner diameter ID of 8 mm </- ID </- 4/mm and/or a thickness D of 1.5 mm </- D </- 0.5 mm.

23. (currently amended) Ultrasound welding device according to ~~at least one of Claims 21 and 22~~ Claim 14, characterized in that the piezo-ceramic breaker plates (50, 52) have electrodes made of baked silver.

LAW OFFICES
DENNISON, SCHULTZ & MACDONALD
SUITE 105
1727 KING STREET
ALEXANDRIA, VIRGINIA 22314-2700
703 837-9600